DETAILED ACTION

The amendments submitted 2/1/10 have been entered.

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites that "the at least one functional element engages at an edge of the curved, essentially symmetrical reflector outside of the reflector opening. However, the claim does not describe to how or what the functional element engages or how it is outside of the reflector opening.

The claims have been examined as best understood.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 12-21, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (2002/013025).

In regard to claim 1, Zhang teaches a lamp comprising at least one base 12/15 for connection to a luminaire, having a curved, essentially rotationally symmetrical

reflector 10, 11, a light source 20 being arranged in the focal point or focal point region of said reflector for the purpose of producing a directional, light distribution of the lamp, the reflector having a reflector opening which provides a light exit plane (E) of the lamp (see figure 2), and the light source being arranged spaced apart from the inside of the reflector, and wherein at least one functional element 311, 312 of the lamp at least partially extends essentially along the light exit plane or is arranged at least partially on that side of the light exit plane which faces away from the reflector and wherein the functional element engages at an edge of the curved reflector (10 and 11 are integral – see figures 2 and 3) outside of the reflector opening (curved portion) (see figure 2) [0025-0037], but Zhang lacks the teaching of the source being formed by at least one LED in this particular embodiment.

However, Zhang teaches that LEDs are known in the art for various lighting applications and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use LEDs in order to reduce the intensity and/or power consumption for various lighting applications (ie vehicle room lighting or small area lighting needs). One would have been motivated since LEDs are recognized in the illumination art to have many desirable advantages, including reduced size, high efficiency, low power consumption, long life, resistance to vibrations, and low heat production, over other light sources.

In regard to claim 2, Zhang teaches the functional element protrudes at least partially out of the reflector opening (see figure 2) [0033].

In regard to claim 3, Zhang teaches the light source has at least one associated voltage supply line which extends essentially along the light exit plane (see figure 2) [0033].

In regard to claim 4, Zhang teaches two voltage supply lines are provided for the LED which extend essentially diametrically with respect to one another (figure 1)[0025].

In regard to claim 5, Zhang teaches three voltage supply lines for the light source, are provided, of which in each case two enclose an angle of approximately 120° along the light exit plane (see figure 7 – 312, 314, 316).

In regard to claim 6, Zhang teaches four voltage supply lines 311-314 for the light source are provided of which in each case two enclose an angle of approximately 90° along the light exit plane (see figure 5)[0039].

In regard to claim 7, Zhang teaches one of the at least one voltage supply line is provided which engages around one edge of the reflector opening (figure 2)[0029].

In regard to claim 12, Zhang teaches a grip part 321,322,302 is provided on that side of the light exit plane which faces away from the reflector [0037].

In regard to claims 13-15, Zhang teaches the light source has at least one associated heat sink 311,312A for heat dissipation purposes and wherein the heat sink is spaced apart from the apex of the reflector and it is arranged on that side of the light exit plane and/or light source which faces away from the reflector [0037-0038].

In regard to claims 16-19, Zhang teaches that the heat sink has a compact as recited in claim 16 wherein the cooling block is arranged essentially in the region of a longitudinal center axis of the reflector as recited in claim 17(figure 4 shows a portion of

the heat sink arranged essentially in the longitudinal center of the reflector),wherein the heat sink heat sink comprises a cooling plate which extends essentially along the light exit plane as recited in claim 18, and wherein the cooling plate extends from the light essentially up to one edge of the reflector opening(see figures 2 and 4) as recited in claim 19 [0037-0038].

In regard to claims 20 and 21, Zhang teaches that the reflector is essentially continuous and free of apertures in the region of its apex (see figure 2) [0028].

In regard to claim 23, the light distribution of Zhang (as described above) would produce narrowly emitted light since the light is limited by the supporting walls and also because LEDs have a smaller emission angle.

In regard to claim 24, Zhang teaches that the functional element of the light source 311A, 312A which at least partially extends essentially along the light exit plane or is arranged at least partially on that side of the light exit plane which faces away from the reflector is at least one voltage supply line of the light source and/or at least one heat sink 311A,312A for the light source.

In regard to claims 25, Zhang teaches the three voltage supply lines are for a light source unit having at least two luminary elements.

In regard to claim 26, Zhang teaches four voltage supply lines are for light source unit having at least three luminary elements.

The regard to the light source unit having LEDs, Zhang modified above (with regard to claim 1) addresses that LEDs would have been obvious to one of ordinary skill in the art at the time the invention was made and it would have been obvious to include

multiple LEDs for the purpose of providing different colored light and various lighting effects as desired for particular design applications.

Claims 8-11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Kai (2002/0158579).

In regard to claim 8, Zhang teaches the invention described above, but lacks the teaching of a transparent cover element associated with the reflector and closing the reflector opening.

Kai teaches a transparent cover element 12 associated with the reflector and closing the reflector opening [0095].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cover element as taught by Kai in Zhang device in order to provide protection for the light source. One would have been motivated to use a cover element in order to prevent ingress, dust, debris or other elements that may effect the functionality of the lighting device.

In regard to claim 9, the cover of Kai is essentially in the form of a circular disk (figure 5) [0078].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cover element as taught by Kai in Zhang device in order to provide protection for the light source. One would have been motivated to use a cover element in order to prevent ingress, dust, debris or other elements that may effect the functionality of the lighting device.

In regard to claim 10, Kai teaches the cover element has a central opening for accommodating a light source.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cover element as taught by Kai in Zhang device in order to provide protection for the light source. One would have been motivated to use a cover element in order to prevent ingress, dust, debris or other elements that may effect the functionality of the lighting device.

In regard to claim 11, Zhang teaches one voltage supply line and Kai teaches a cover element. With regard to the voltage supply lines being provided on a side of the cover element which faces away from the reflector, such an arrangement would be obvious to one of ordinary skill in the art in order to maximize the heat dissipation.

In regard to claim 22, Zhang teaches the invention described above, but lacks the teaching of a parabolic reflector.

Kai teaches a parabolic reflector [0099].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a parabolic reflector in order to focus the light as desired for particular light applications and needs. One would have been motivated to use a parabolic reflector in order to concentrate the light on a desired target area.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Levy (2,025,819).

Zhang teaches the invention described above, but lacks the teaching of the at least one functional element engaging with a curved mounting ring at the edge of the curved reflector.

Levy teaches a curved mounting ring located at the edge of a curved reflector.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mounting ring as taught by Levy in Zhang's lighting device in order to protect the reflector. One would have been motivated to use a mounting ring as taught by Levy in order to provide vibration dampening.

With regard to the shape of the mounting ring being curved and at the edge of the curved reflector, the applicant is advised that it has been held by the courts that a change in shape or configuration, without any criticality, is nothing more than one of numerous shapes that one of ordinary skill in the art will find obvious to provide based on the suitability for the intended final application. See *In re Dailey*, 149 USPQ 47 (CCPA 1976). It is acknowledged that the functional part engages the reflector 10, 11 at edges that are not curved, however i does appear that the disclosed device of Zhang would perform equally well shaped is the outer edge of 10 were in a curved shape. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make 10 curved on its outer edge in order to fit the device in an exiting fixture with a circular aperture. One would have been motivated to make the edge of 10 curved in order to retro fit the device in a circular hole.

Response to Arguments

Applicant's arguments filed 2/1/10 have been fully considered but they are not persuasive.

In response to the argument that Zhang does not teach the functional element engaging at an edge of the curved reflector outside the reflector opening, the reflector 11 and box 10 are integral and therefore the functional element does engage the edge of the curved reflector outside the reflector opening wherein the reflector opening is the curved portion and 10 is the engaging/connection portion for functional element (see figures 2 and 3).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIE A. SHALLENBERGER whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS
AU 2885
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/Jong-Suk (James) Lee/
Supervisory Patent Examiner, Art Unit 2885